Please amend the paragraph beginning at line 24 of page 6 and ending at line 29 of page 6 as follows:

The terminal end portions 8a and 8b of the antenna waveguides 5a and 5b are closed at the side portions of the connecting waveguide 4 with microwave absorbers 28a and 28b, respectively. In the proximal end portions 7a and 7b of the antenna waveguides 5a and 5b, aperture size variable control gates (aperture variable device) 9a and 9b are provided.

Please amend the paragraph beginning at line 34 of page 8 and ending at line 4 of page 9 as follows:

In this preferred embodiment, while the terminal end portion 4a of the connecting waveguide 4 has been closed with the microwave absorber 24a, the terminal end portion 4a may be closed with a conductor. In such a case, microwaves in the connecting waveguide 4 reflect on the terminal end portion 4a to form standing waves. Therefore, in order to adjust the phase of microwaves in the connecting waveguide 4 with respect to each of the antenna waveguides, the following setting of dimension is carried out.

Please amend the paragraph beginning at line 19 of page 9 and ending at line 27 of page 9 as follows:

In this preferred embodiment, while the terminal end portions 8a and 8b of the respective antenna waveguides 5a and 5b have been closed with the microwave absorbers 28a and 28b, the terminal end portions 8a and 8b may be closed with conductors. In such a case, microwaves in the respective antenna waveguides 5a and 5b reflect on the terminal end portions 8a and 8b to form standing waves, respectively.

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Therefore, the length of each of the antenna waveguides 5a and 5b is set to be [n(λ/2) + λ/4] to adjust the phase of microwaves.

Please amend the paragraph beginning at line 1 of page 10 and ending at line 8 of page 10 as follows:

Also in this preferred embodiment, the terminal end portions 8a and 8b of the respective antenna waveguides 5a and 5b may be closed with the microwave absorbers 28a and 28b or the conductors. In the case of the conductors, microwaves in the respective antenna waveguides 5a and 5b reflect on the terminal end portions 8a and 8b to form standing waves, respectively. Therefore, the length of each of the antenna waveguides 5a and 5b is set to be [n(λ/2) + λ/4] to adjust the phase of microwaves.

IN THE CLAIMS:

Please amend claims 1, 3, 4, 6-8, 10, 11, 13, and 14, and add new claims 15-20, as follows:

1. (Amended) A microwave plasma processing system comprising:

a processing vessel;

an antenna for introducing microwaves into said processing vessel, having a plurality of substantially ring-shaped antenna waveguides which are substantially concentrically arranged, each of said antenna waveguides comprising a proximal end portion, a terminal end portion, and a rectangular waveguide having a wall in which a plurality of slots are formed at intervals;

a microwave supply source for supplying said microwaves to said antenna; and

a connecting waveguide for connecting said microwave supply source to said proximal end portion of each of said antenna waveguides,

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